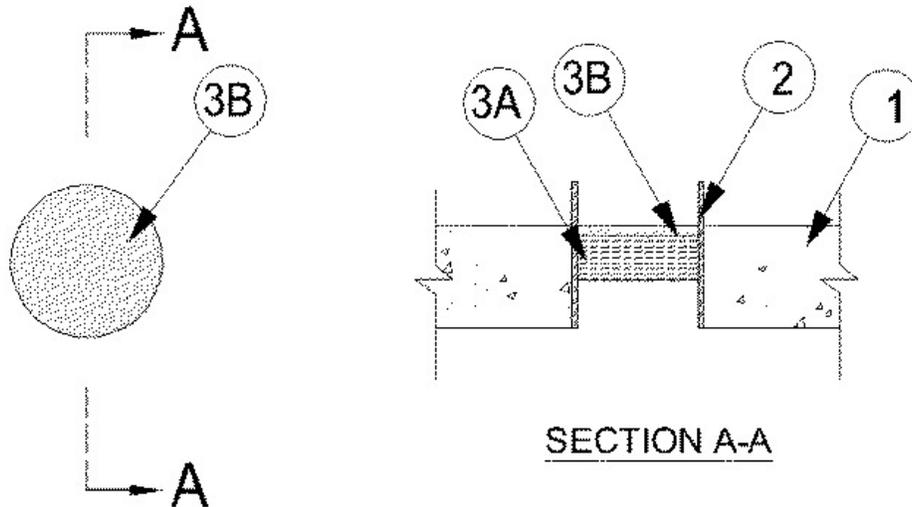


**F Rating — 2 Hr**  
**T Ratings — 1-3/4 & 2 Hr (See Item 2)**  
**W Ratings - Class 1 (See Item 2)**



**1. Floor or Wall Assembly** — Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-24009 kg/m<sup>3</sup>) concrete. Wall may also be constructed of any UL Classified **Concrete Blocks\***. Max diam of opening is 6 in. (152 mm)

See **Concrete Blocks** (CAZT) category in the Fire Resistance Directory for names of manufacturers.

**2. Steel Sleeve** — (Optional) - Cylindrical sleeve fabricated from 0.036 in. (0.9 mm) thick (No. 20 gauge) galv sheet steel and having a min 1 in. (25 mm) lap along the longitudinal seam. Steel sleeve to project max 2 in. (51 mm) beyond the top surface of the floor or both surfaces of the wall. Sleeve cast of grouted in the concrete floor or wall.

T Rating is 2 Hr when no sleeve is used. W Rating applies when no sleeve is used and max opening size is 2-1/2 in. (64 mm).

**3. Firestop System** — The firestop system shall consist of the following:

**A. Packing Material** — Min 2 in. (51 mm) thickness of min 4 pcf (64 kg/m<sup>3</sup>) mineral wool batt insulation tightly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material.

**B. Fill, Void or Cavity Material\* — Caulk** — Min 1/2 in. (13 mm) thickness of fill material applied within the annulus, flush with the top surface of floor or with both surfaces of wall.

**RECTORSEAL** — [MC150+](#)

\*,+ Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

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